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AUTHOR Adams, Charles F.
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ABSTRACT

Most educational planning models are weak at identifying future events and assessing their impact on education. At best they assume a surprise-free future in which present trends continue unabated and interrelationships among social, economic, political, and technological forces stay the same. The ED QUEST model was developed to ameliorate these weaknesses and provide administrators with a useful futures approach to educational planning. The model uses group process during a few day-long sessions over a two- or three-week period, wherein participants analyze major environmental trends affecting the organization and assess strategic options. This paper describes the eight primary activities in the ED QUEST process. The first major activity is to identify the planning team, appoint a facilitator, and hold a briefing meeting. The second task involves developing a future prospects notebook with relevant journal articles, trend charts, and other forecasting aids. During the first session, planners deliberate on the organization's mission, identify indicators to assess the organization's performance, and discuss major organizational strengths and weaknesses. After posting results, the teams focus on examining future trends, using the Delphi technique. The second session involves analyzing the plausibility and impact of various scenarios and "matching" strategic options to deal with them. ED QUEST will produce little of lasting organizational significance unless results are incorporated into the institution's planning process. (MLH)

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ED QUEST: A MODEL PROCEDURE FOR FUTURES PLANNING IN EDUCATIONAL ORGANIZATIONS

by : Charles F Adams
Wichita State University
Kansas

Prepared as part of A symposium "ED QUEST: A PROCESS FOR LINKING ENVIRONMENTAL CHANGES WITH STRATEGIC MANAGEMENT"

for SIG/FUTURES RESEARCH

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The ED Quest Model

Rationale

All organizations have environments with which they interact and for which they serve a purpose. One of the critical issues educational administrators must address is the way in which they analyze their institutions to adapt to all of their environments, internal and external. Without knowledge of these environments, it is difficult for administrators to develop appropriate strategies to achieve organizational goals. The formulation and selection of strategic policies require an accurate assessment of the opportunities and threats the environment poses for the institution. It is important, therefore, to be able to identify and forecast critical trends, events and their interrelationships which enable the development of images of possible future environments within which the institution may function. That is, well developed scenarios of alternative futures illustrate unique configurations of trends and possible future events with which the institution may have to contend, thereby providing the basis for selecting strategic options.

Most educational planning models are weak in identifying future events and assessing their impact on education. At best, they assume a surprise-free future in which present trends continue unabated. Such models implicitly assume that the interrelationships between and among social, economic, political, and technological forces will remain essentially the same. What is needed is a model which enables

administrators to detect signals of change (i.e. emerging issues or events which may make the future different from the past) and link this information to the organization's strategic management. ED QUEST was developed to ameliorate weaknesses of traditional models and provide administrators with a useful futures approach to strategic planning. It has been developed to assist educational planners in linking environmental trends with the ongoing planning and management process of the institution.

Model Description

ED QUEST was developed by the Institute for Future Systems Research to be used by the top administrators in an educational organization. The assumption underlying the process is that it is the perceptions of the environment held by the key decision makers in the organization that serve as the basis for maintaining or changing internal structures and processes to cope with environmental uncertainty. The concept was adopted from the original QUEST model developed by Nanus in 1979 and it retains his focus upon quickness. It has been designed, so that only a few days out of the busy schedule of top level administrators are used. It is a face-to-face group process, in a few day-long sessions over a two to three week period, wherein the participants produce an analysis of the major environmental trends impinging upon the organization and on assessment of strategic options available to the organization.

There are eight primary activities in the ED QUEST process. Their sequence and interrelationships are depicted in Figure 1. The first major activity is to prepare for the ED QUEST process. This

entails the identification of the ED QUEST team, those organizational leaders in addition to the chief executive officer who will be on the team. It is recommended that the team be small, under 15 people. The team then selects a planner-facilitator. Two approaches can be utilized to select the facilitator; either appoint one of the team members who has skills as a group process leader and is perceived as a legitimate leader by the other team members or employ an outside consultant with the requisite skills. The first approach has the advantage of a person know-ledgeable about the organization and its members while the second approach ensures that the facilitator is competent in futures research-planning techniques and is not burdened with a full set of administrative responsibilities in addition to serving as team facilitator.

Once the facilitator has been selected, a short meeting of the team to brief them on the entire process should be held. The focus of the briefing should be on the objectives of the ED QUEST process and an explanation of the benefits to the organization. The emphasis is on encouraging team members to view the relevant environmental factors confronting the organization. The briefing meeting should end with a date set for the first full day ED QUEST session.

The second major task in the process is to develop a "Futures Prospects Notebook", a copy of which will be given to each team member at least two weeks prior to the first ED QUEST session. The notebook will be a collection of emerging issues and forecasts of potential events which could occur within a 10 to 20 year time frame, the future planning horizon for consideration. Journal and newspaper articles, book excerpts and trend extrapolation charts dealing with

the future of education along with speeches of prominent persons on future economic, political, social and technological trends that could affect education should constitute the makeup of the notebook. All team members would be expected to review the material prior to the first session.

Major activities three, four and five occur at the first ED QUEST session. The setting should be a comfortable facility, off-site if possible, where full participation and informality are characteristic. The session will normally run about eight hours including lunch and brief coffee breaks. A circular or horseshoe seating arrangement around tables is preferable and the facility should have flip charts, markers, tape and necessary notepads, etc.

The planning work of the team commences with a deliberation of the mission of the organization, identification of the indicators used to assess the institution's performance, and the major strengths and weakness of the organization. The first task in defining the nature of the organization is identifying the clients, needs, and programs and/or services it offers and serves. As these elements are discussed they are recorded on the flip chart by the facilitator and individually by the team members on a form provided, Figure 2.

Next, the ED QUEST team develops a list of the indicators of performance in those mission areas that are critical to its success. Some attributes of performance that should be considered are: 1) effectiveness 2) efficiency 3) cost 4) quality 5) client sense of satisfaction. Example indicators might be: 1) drop out rate 2) awards received by graduates 3) cost/student etc.

The final task in this initial activity of the team is to

identify the current strengths and weakness of the organization. The following definitions are proposed for use as guides during this segment of the process:

Strength - A current advantageous situation, capability, and/or success that may be either internal or external to the institution.

Weakness - A current disadvantageous situation and/or capability that may be lacking internally in the institution or external situation that places the institution in a disadvantageous position.

The completed list is then posted for all to see.

The focus of the team is then shifted from the organization itself to examining the future. The important trends and possible future events are identified. In the intervening time between the orientation briefing and the first session, a Delphi survey is conduc-ted with the members of the ED QUEST team and any other staff members the team wishes to include to ensure broad imput. Two Delphi rounds will be conducted with the first soliciting the critical trends and future events that may be significant to the institution. The first round survey is distributed with the Future Prospects Notebook, see Figure 3., and respondents are asked to identify up to 3 trends and 3 events. The results of round one are used to develop the round two Delphi questionnaire by the team facilitator. The facilitator should review and reword all trends and events received and add any additional ones not identified by the team that could have an impact on the organization. This second round questionnaire asks each respondent to rate the importance of each trend to the

future of the institution and to estimate the probability of each event occurring, and its impact on the institution if it were to occur, (see Figure 4 A&B).

The facilitator will tabulate the results of round two and prepare a master list of trends and events on a flip chart. Trends are place on a chart grouped in 4 categories of importance, High, Strong, Moderate, Low/none. Events are listed in a matrix according to probability-impact estimates, (see Figure 5). These charts are reviewed as the second major activity of the first ED QUEST session. As a result of the discussion of the events and trends a finalized list is agreed to for further analysis of the Team. A short 3rd round of the Delphi at the session may be required at this point. Participants should have a typed list of these trends and events and the Flip chart lists should be posted on the wall.

The third activity of the ED QUEST session is to analyze the relationship of each future event to each of the other events. This is done using the cross-impact matrix technique. Each team member is given a blank Cross Impact Assessment Form, (See Figure 6) and they list each event in the blank column (all must order them on the list identically). They then fill in each blank cell of the form using the following scale:

+3 greatly incerased probability of the event occurring

+1 some increased probability of the event occurring

0 no change in probability

-1 some decreased probability of the event occurring

-3 greatly decreased probability of the event occurring

The facilitator collects the completed matrix forms and aggregates

them into a summary chart. Adding the row totals represents the relative impact of the event on all other events and the column totals indicates the relative sensitivity of the event to the occurrance of the other events. This summary matrix will be used later to develop scenarios of the future.

The final major activity of the first ED QUEST session is an assessment of the importance of the critical trends and events on the institutional mission, key performance indicators, and strengths and weaknesses. This enables the team to identify the specific changes that the trends and events are likely to have on the institution's mission and how they may affect the organizational performance.

To assess the impact of trends and events on the mission, the Flip chart list of clients, needs and services provided are used. By referencing the completed lists of events and trends, the group discusses how each of the three components of the mission could be affected in the future. Will the client base change? Will current needs be met or expanded? These and related questions are answered with the facilitator recording the responses on the chart.

Once this task is completed, the team then assess the impact of the critical trends and events on each of the key performance indicators of the organization. First the list of performance indicators is reviewed to finalize the list, changes and additions are made at this point. Each team member is provided a blank assessment form (see Figure 7) on which they list the trends and events down the left column and the key indicators across the top, (Numbers can be used as they are listed on the Flip charts). Using a -10 0 +10 scale, each participant assesses the impact of each event

on each indicator in the appropriate cell of the form. When completed, the facilitator will tally all responses in a large matrix on a Flip chart. The following summaries are made, Total Positive Impact, Total Negative Impact and Absolute Impact (sum of all impacts without regard to sign). This data will be used later in the scenario development process and in development of strategic options.

The final task of the team at the session is to select the most significant organizational strengths and weaknesses for use later in assessing strategic options. Using the previously developed lists of strengths and weakness, the facilitator has the members rank order them in priority terms. The individual, "votes" are tallied and ranked from highest to lowest. A final list of the top 10-12 strengths and weakness is determined.

Between the first and second ED QUEST sessions, the facilitator must complete a number of important tasks. The primary result will be the completion of a number of scenarios of the future. At least one scenario should be developed as the "most likely" future, one developed from the data from the first session upon which there was high concensus. Other possible scenarios can be developed using the probability and impact data generated by the team.

Prior to developing each scenario it is recommended that the facilitator prepare a card (3"x5" or 5"x8") for each critical event or trend. On the card, in addition to the description of the event, the probability and impact indices should be listed. These cards can then be reviewed, selected and sorted into a plausable series of events and trends. Once this has been completed, a narrative scenario can then be generated. Perhaps an impact network of the

events and trends can be graphicaly displayed for each scenario which can facilitate assessment of the scenario as well as presenting a visual representation for the ED QUEST team members.

When the scenarios are completed, the facilitator schedules the second ED QUEST session. It should be organized and conducted simularly to the first session. A packet of materials including a copy of each scenario, a scenario review form (see Figure 8) and, form for listing institutional strengths and weakness, will be given to team members at the beginning of the second session. Again, the session will start with an overview by the facilitator of the day's procedures.

The initial activity will be an assessment by the team of each of the scenarios. Two major questions relative to each scenario are posed which the group must answer. "Is it plausable; could it happen?" The second one is, "How would the organization be affected if this scenario were to come about?" To complete the assessment, the team is divided into sub-groups, one for each scenario. Once the group members have reached concensus, a recorder will record on newsprint the resultant analysis in terms of its implications for the institution. The total team will then review the analyses of each scenario and make any further recommendations or additions.

The team will then return to their sub-groups and perform the second major activity. They will develop a preliminary list of strategies the group believes are appropriate and feasible for the implications previously defined. These can be recorded on the form depicted in Figure 8. Each suggestion should then be reviewed to ensure that each strategy would be an option that would place the

institutuion in an advantageous position in relationship to the future environment described in the scenario. Strategies may be combined or reworded to form a new strategic option. The intent is to "boil down" the initial list of suggestions into strategic options seen as most likely for the organization in the future described in the scenario.

The next task of each sub-group is to assess the potential impact of each strategic option on the organization's strengths and weaknesses. The two lists of strengths and weaknesses developed at the first ED QUEST session are used. They have been recorded on matrices similar to Figures 9 and 10. The identified strategies are listed in the left column, then each member, using a +10 to a -10 scale, indicates their assessment of each strategy on each weakness and each strength. The individual assessments are then combined into a group assessment. The values in each cell are algebraically summed across the rows of the form to give an overall impact score for a particular strategy.

Once the sums of all strategic options on all strengths and weaknesses have been computed, the group can select the strategic options that might be considered for inclusion into the organization's strategic management process. The groups should select strategic options whose impact on institutional strengths are represented by large positive scores and whose impact on institutional weaknessess are represented by large negative scores. That is, the larger a particular strategic option row's positive sum the more likely the impact will enhance the organization's strengths. Similarly, the larger the strategic option's row negative sum, the

more likely the strategic option will inhibit weaknesses.

The final activity of this second session is for the entire team to select the most promising strategies for inclusion in the organization's strategic planning process. A representative of each subgroup presents to the entire team a brief overview of the scenario, its potential affects on the organization and the list of strategies that are most promising. The rationale for selection, including impact on strengths and weaknessess, is presented. Each scenario group makes its presentation to the entire group, answering questions and clarifying rationale.

Finally, the facilitator leads a total group review inorder to determine which of the strategies, if selected for implementation, would address the implications of more than one of the alternative futures presented in the scenarios. Those that meet this criteria are the ones that become important to the future of the institution. Other criteria can be utilized as well in helping determine which strategies to select for implementation. Such factors as political acceptability, consistency with community values or others could be included in the decision process.

Conclusion

Other than hightening awareness of possible future environments with which the organization must lead, little of lasting organizational significance will result from ED QUEST unless the results are incorporated into the ongoing planning process of the organization. It is assumed that because the senior administrators of the organization have been involved, they will take some steps to insure that the strategies identified will be given some priority. Prior to leaving

the final ED QUEST session, some next steps such as assiging strategies to a particular administrator or group should be agreed to. The next presentation will describe a few case studies in the use of ED QUEST and how it was incorporated into the organizations management process.

Notes

1 Aldrich, Howard and Mindlin, Sergie. "Uncertainty and Dependence: Two perspectives on Environment", in Karpik, Lucien (Ed.), Organization and Environment: Theory Issues and Reality. Sage Publications: Beverly Hills, 1978, pp.149-170.

2 Nanus, Burt. "QUEST - Quick Environmental Scanning Technique", Long Range Planning. 15 (2), 1982, p.39-45.

Figure 1

ED QUEST

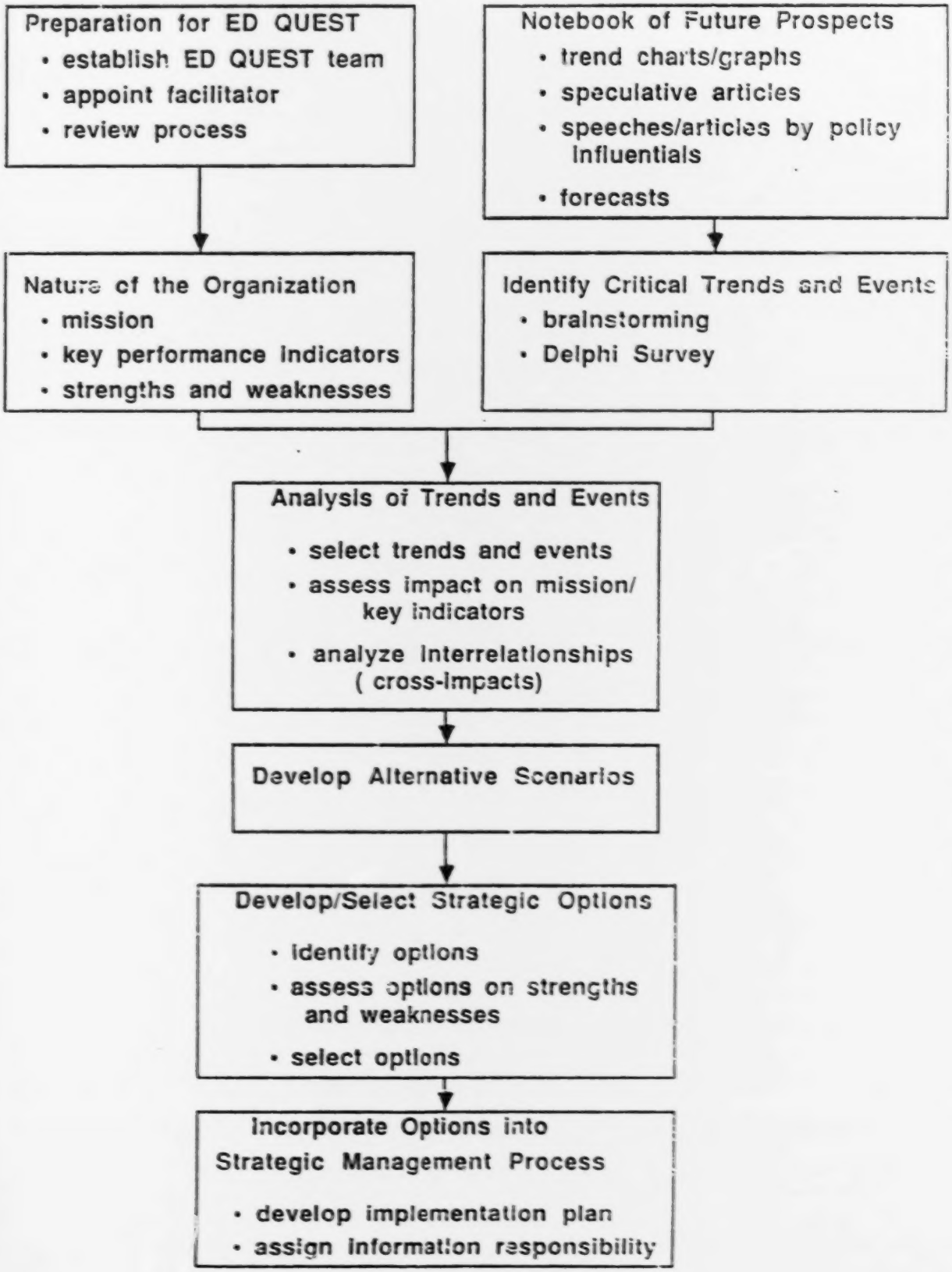
Preparation for ED QUEST
• establish ED QUEST team
• appoint facilitator
• review process
Notebook of Future Prospects
• trend charts/graphs
• speculative articles
• speeches/articles by policy influentials
• forecasts
Nature of the Organization
• mission
• key performance indicators
• strengths and weaknesses
Identify Critical Trends and Events
• brainstorming
• Delphi Survey
Analysis of Trends and Events
• select trends and events
• assess impact on mission/ key indicators
• analyze interrelationships (cross-impacts)
Develop Alternative Scenarios
Develop/Select Strategic Options
• identify options
• assess options on strengths and weaknesses
• select options
Incorporate Options into Strategic Management Process
• develop implementation plan
• assign information responsibility

Figure 2

ELEMENTS OF MISSION

Name of Organization _____

	DEFINITIONAL CATEGORIES		
	CLIENTS/GROUPS SERVED...	NEEDS SATISFIED...	SERVICES OFFERED...
PRESENT			
FUTURE			

FIGURE 3 ROUND 1 QUESTIONNAIRE

EDUCATIONAL QUEST SURVEY

In this questionnaire, you are asked to think about the future of education in the college's service area, the state, and the nation.

Specifically, you are to select three trends you believe will have importance to this college's future and three events that in your opinion will have (1) a high likelihood of occurring in the next 10 years and (2) a significant impact upon higher education.

List each trend and event in the appropriate space below.

Trend 1 _____

_____

_____

Trend 2 _____

_____

_____

Trend 3 _____

_____

_____

_____

Event 1 _____

_____

_____

Event 2 _____

_____

_____

Event 3 _____

_____

_____

ASSESSMENT OF PROBABILITY FOR HIGH IMPACT EVENTS

EVENT NO.	EVENT	PROBABILITY	
	Description	My Estimate	Group Estimate

Figure 4

CROSS-IMPACT ASSESSMENT

EVENT DESCRIPTOR If this event were to occur by the year 2000... ↓	with this → probability ↓	PROBABILITY IMPACT Then how would it change the probability of this event occurring by the year 2000...									
		1	2	3	4	5	6	7	8	9	10
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

Figure 5

Figure 6

Probability/Impact Matrix

PROBABILITY	IMPACT		
	High 6.0 - 10	Moderate 3.0 - 5.9	Low/None 0 - 2.9
High .75 - 1.00			
Moderate .50 - .74			
Low 0 - .49			

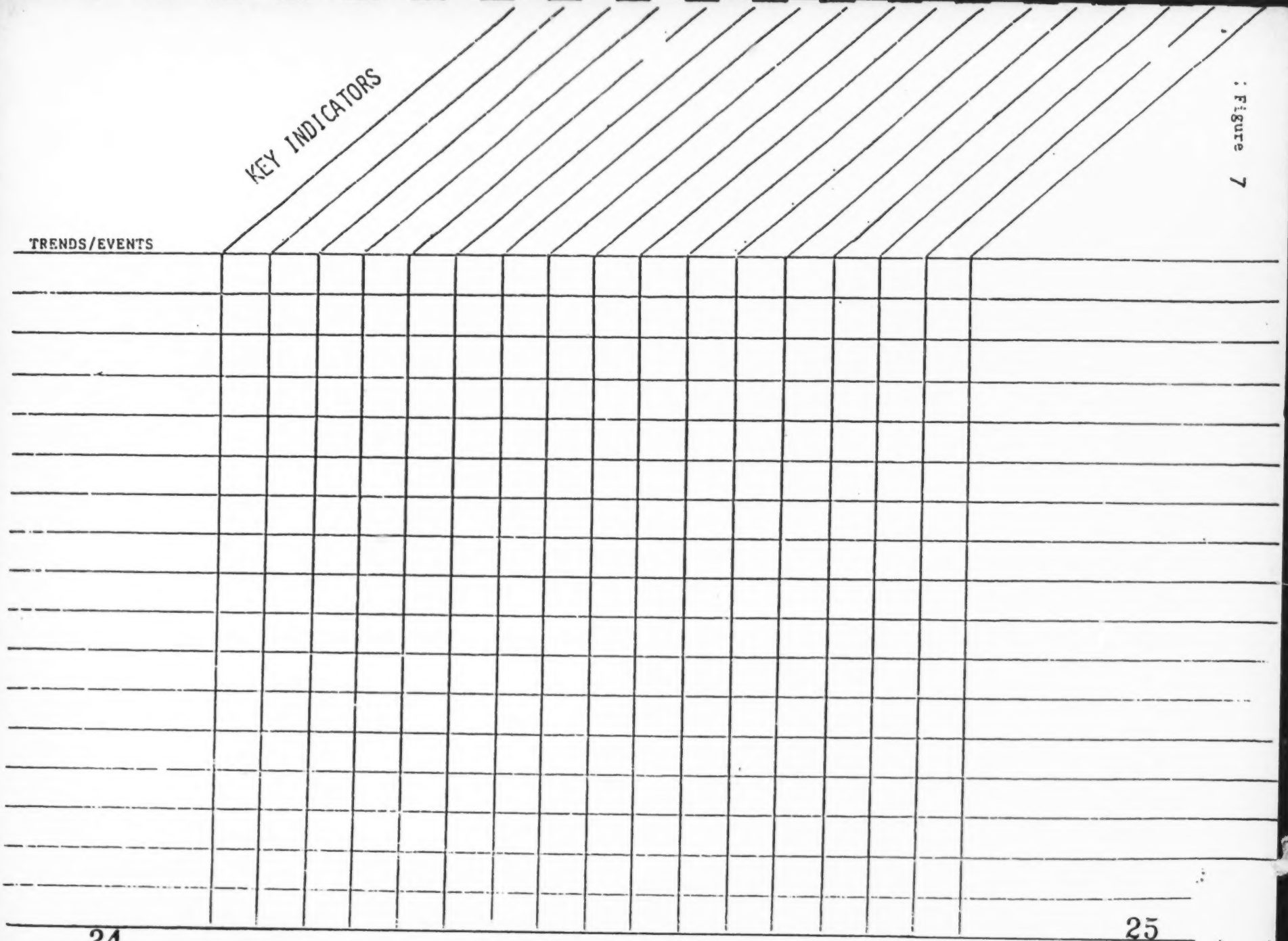

Figure 7

Figure 8

Scenario: _____

SCENARIO REVIEW FORM

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1. IMPLICATIONS OF THE SCENARIO:

---

2. STRATEGIES:

STRATEGIC OPTION IMPACT MATRIX
(ORGANIZATIONAL STRENGTHS)

STRATEGIES	STRENGTHS									
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.

Figure 9

STRATEGIC OPTION IMPACT MATRIX
(ORGANZATIONAL WEAKNESSES)

STRATEGIES	WEAKNESSES									
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.

Figure 10